

Fig.1

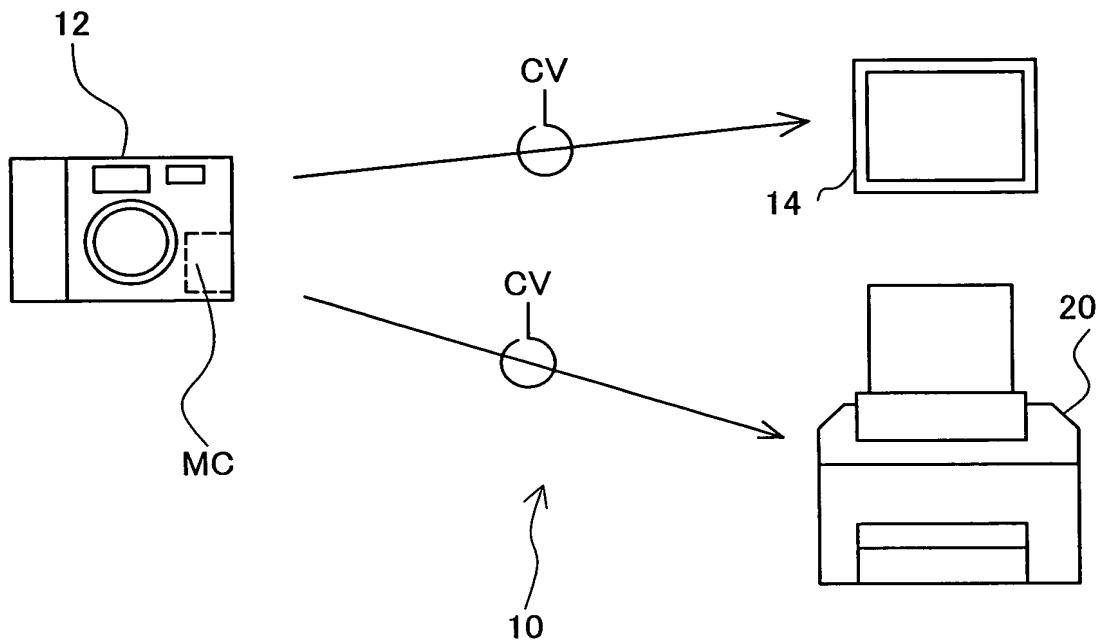


Fig.2

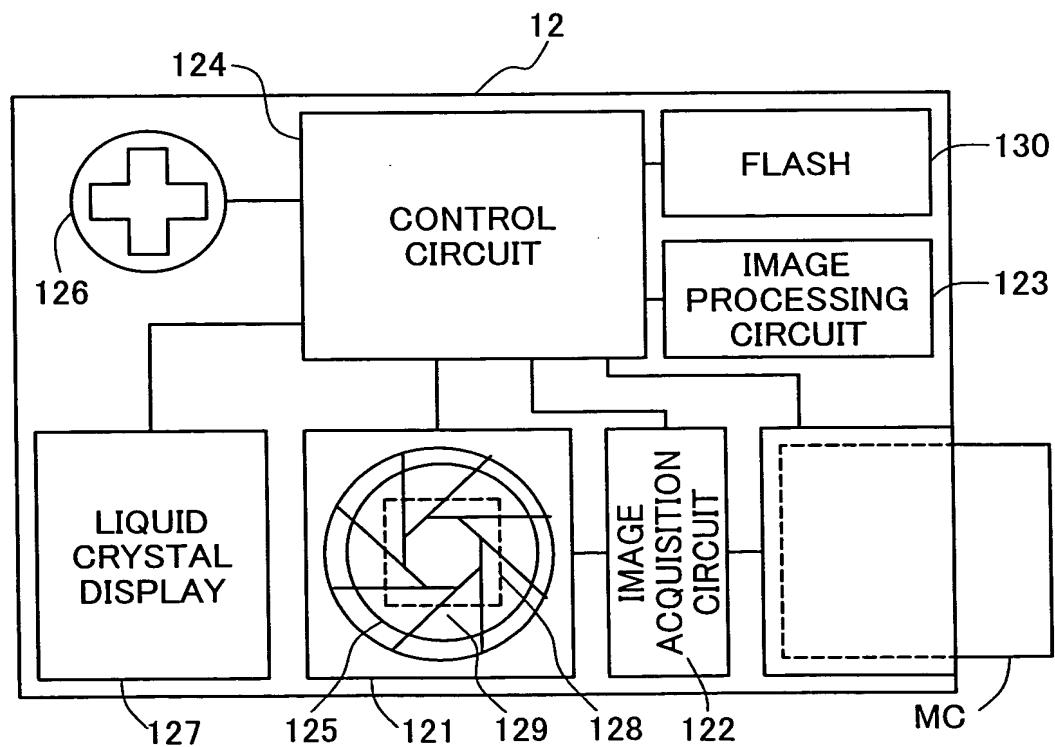


Fig.3

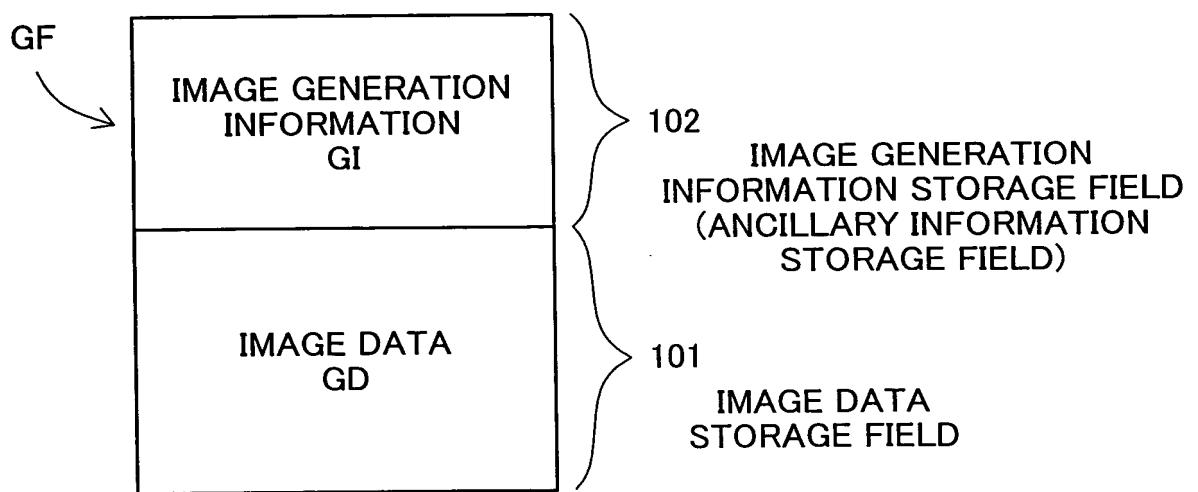
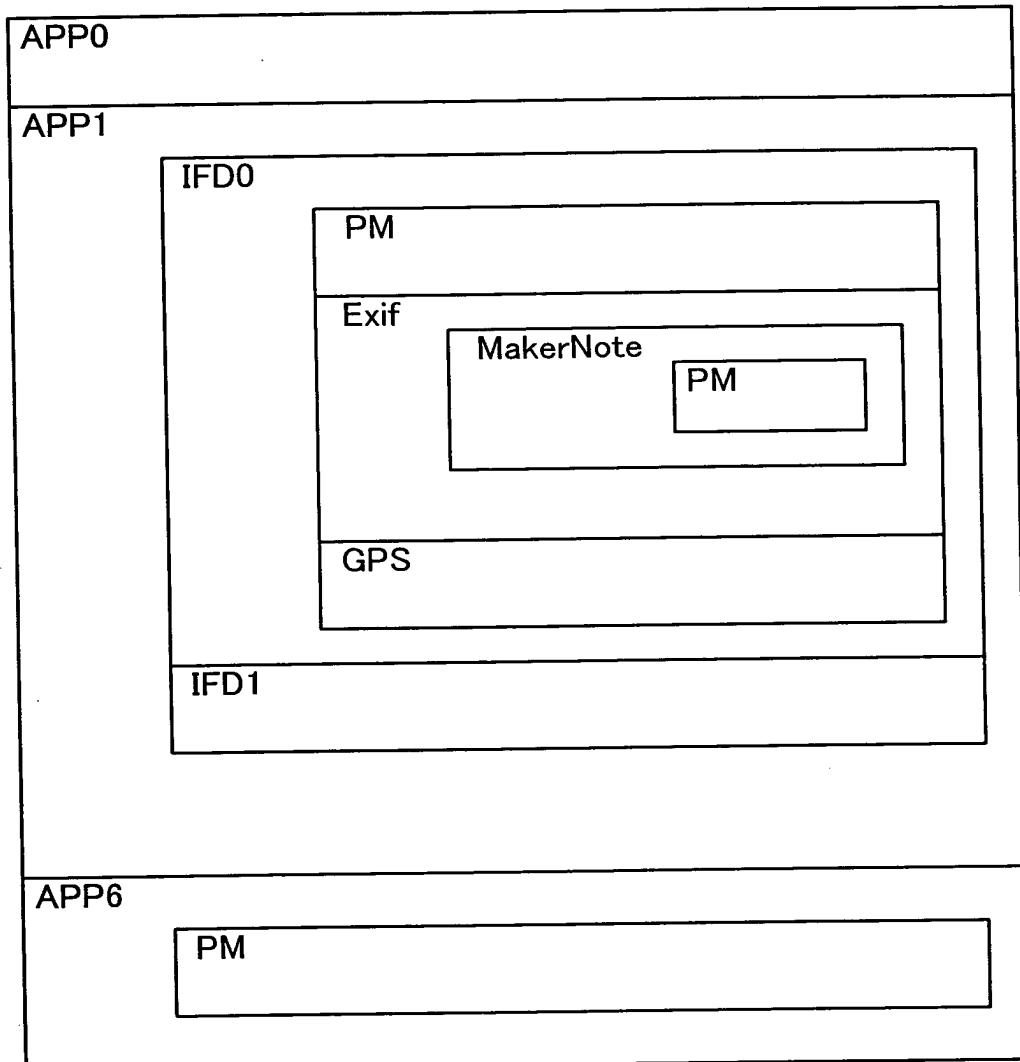


Fig.4



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Fig.5

Tag name	Parameter value
Light source	clear sky
Flash	<ul style="list-style-type: none"><li>• auto flash mode</li><li>• flash on</li><li>• reflected light sensor present</li><li>• reflected light sensed</li></ul>
Subject distance	1 (m)
Subject area	<ul style="list-style-type: none"><li>• center coordinates (640, 512)</li><li>• width (324)</li><li>• height (375)</li></ul>
Flash intensity	1000 (BCPS)
Aperture value	F8
ISO speed rate	100
●	
●	
●	

Fig.6

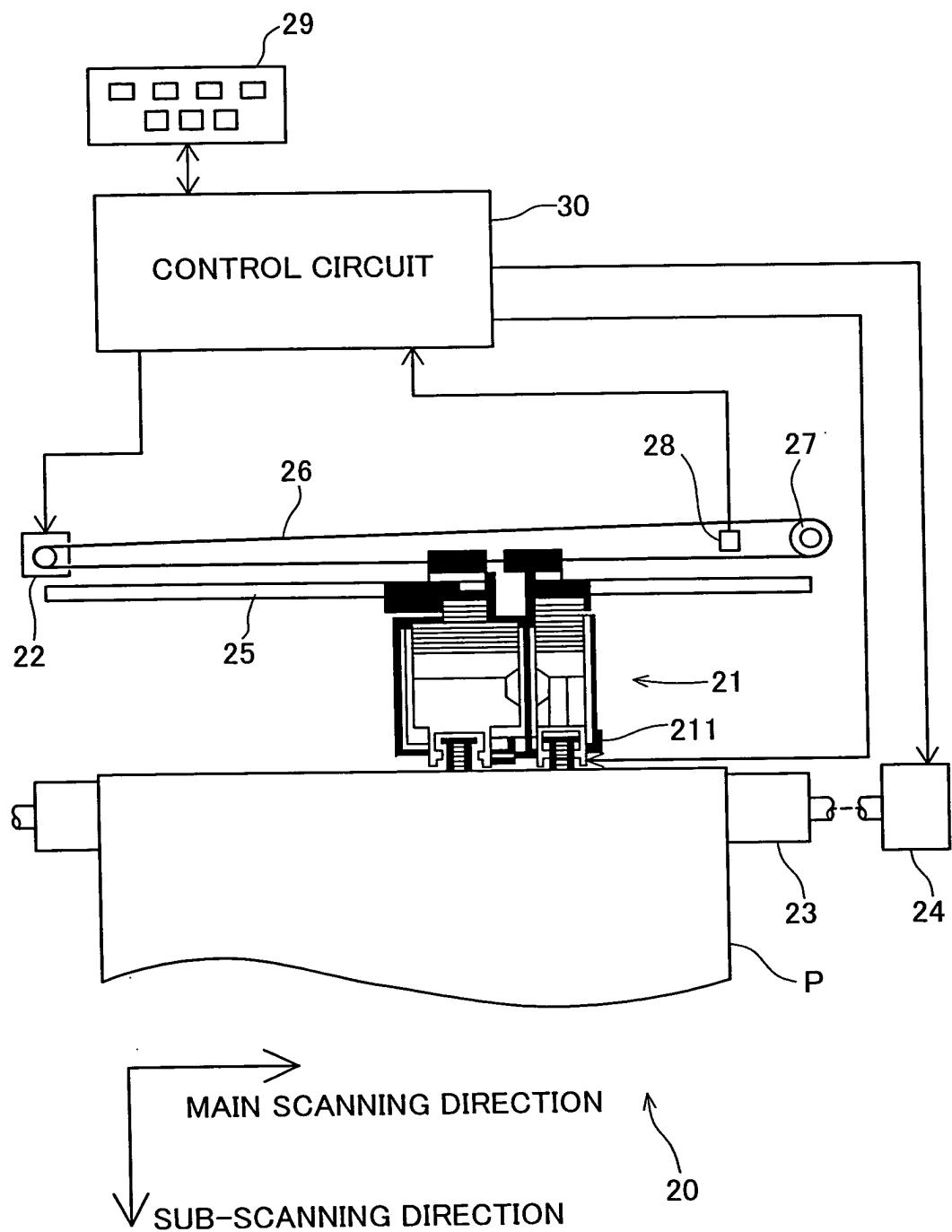


Fig.7

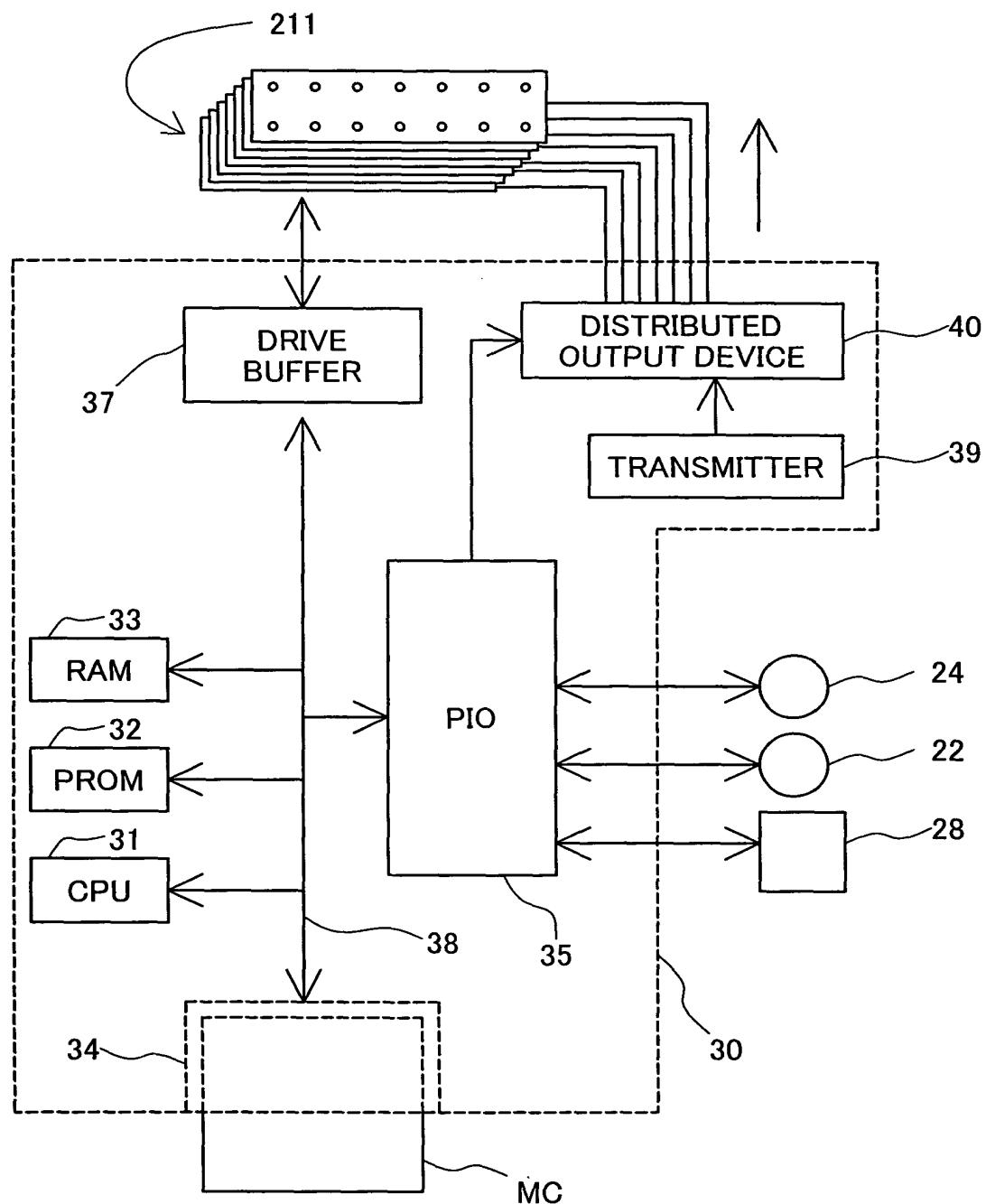


Fig.8

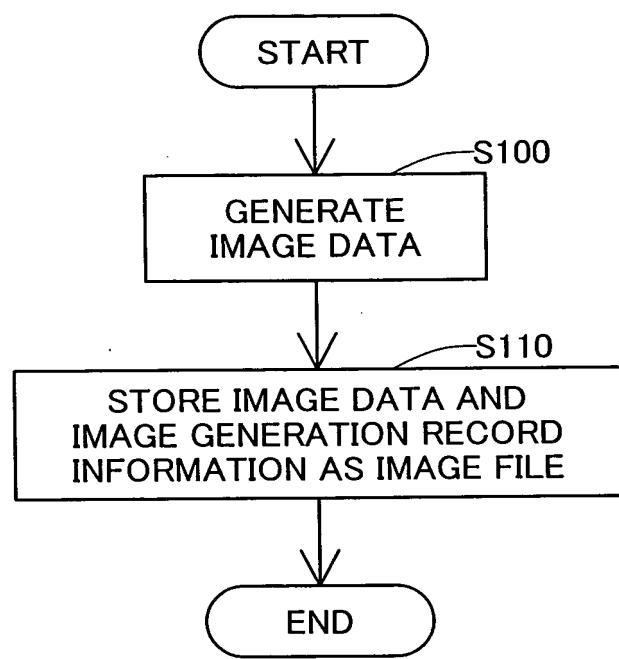


Fig.9

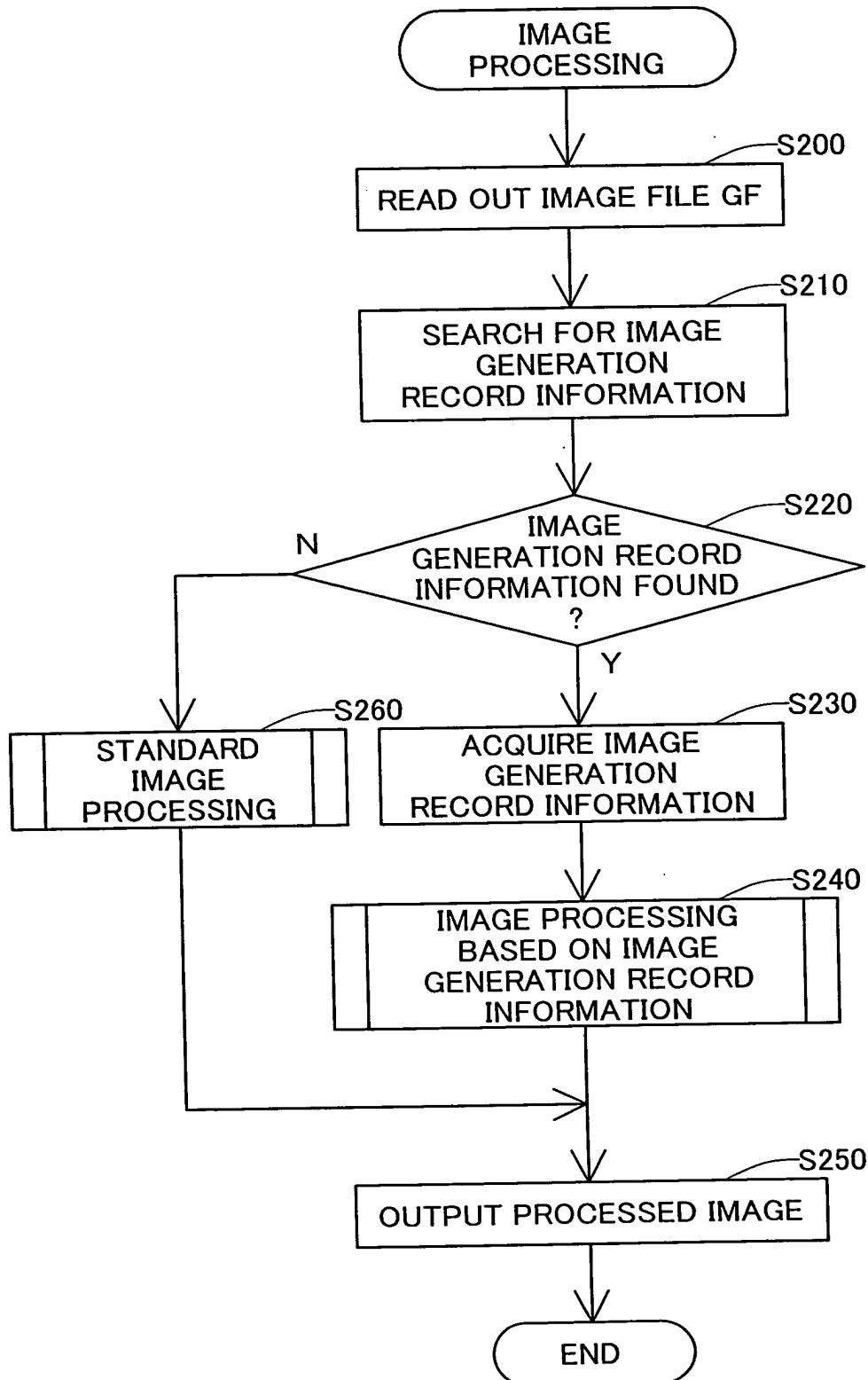


Fig.10

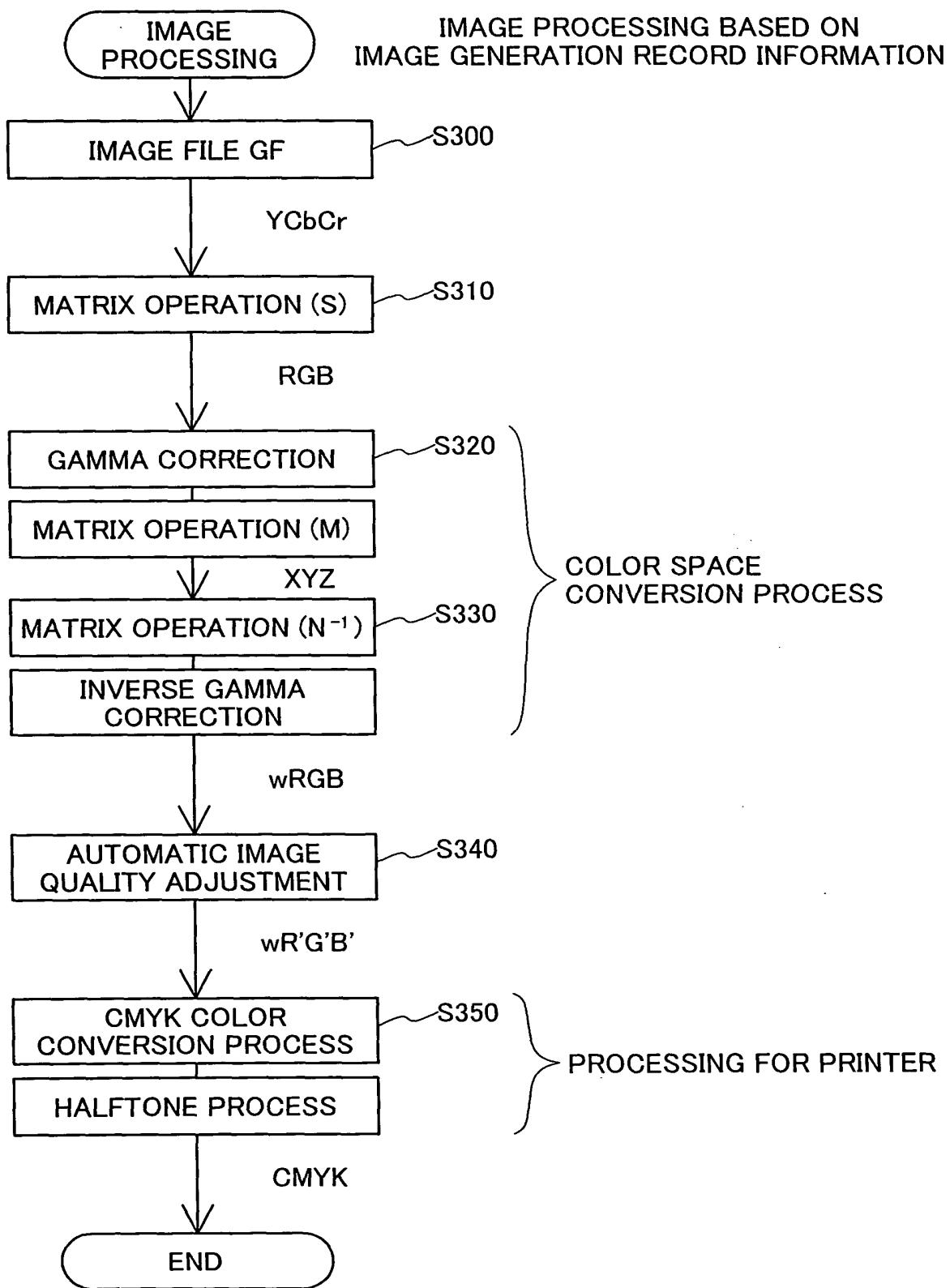


Fig.11

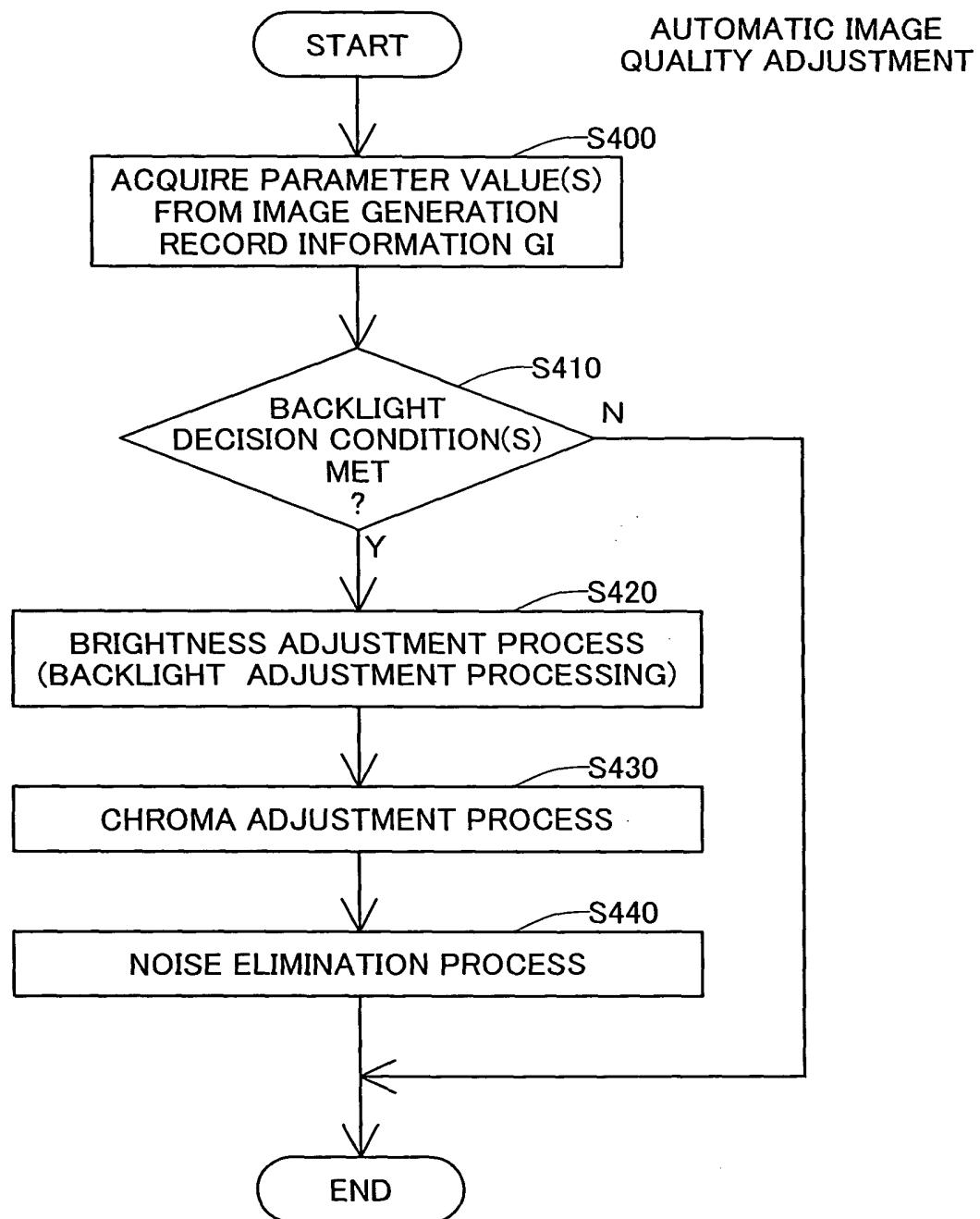


Fig.12(a)

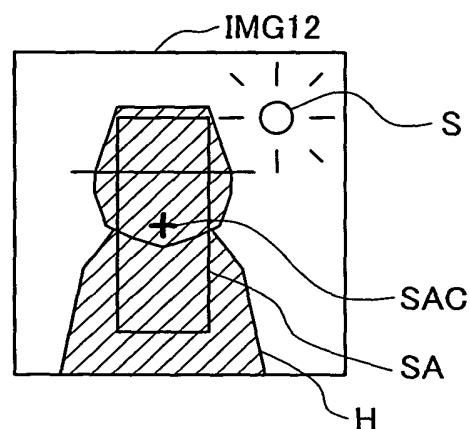


Fig.12(b)

$B_{Ave}$ : average brightness value within subject area  
 $B_{ave}$ : average brightness value of entire image  
 k: predetermined constant

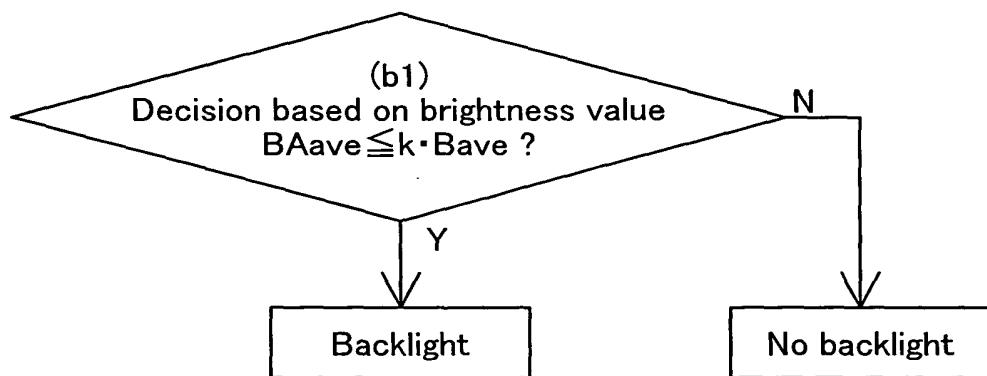


Fig.13(a)

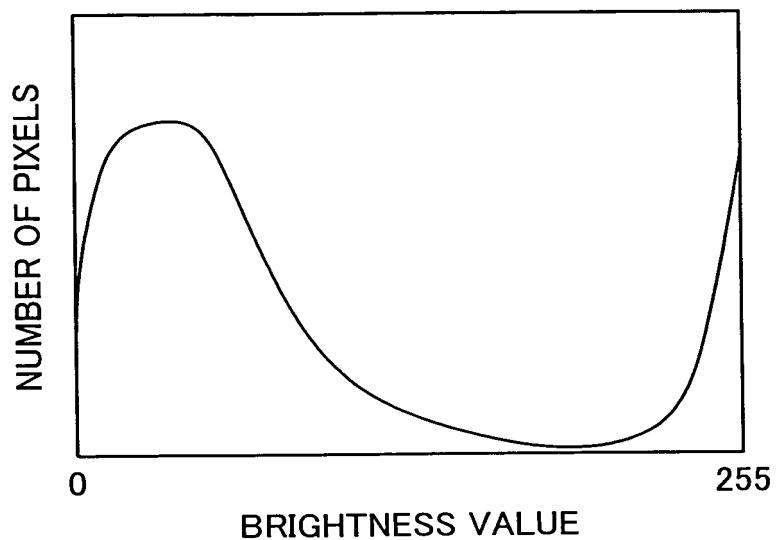


Fig.13(b)

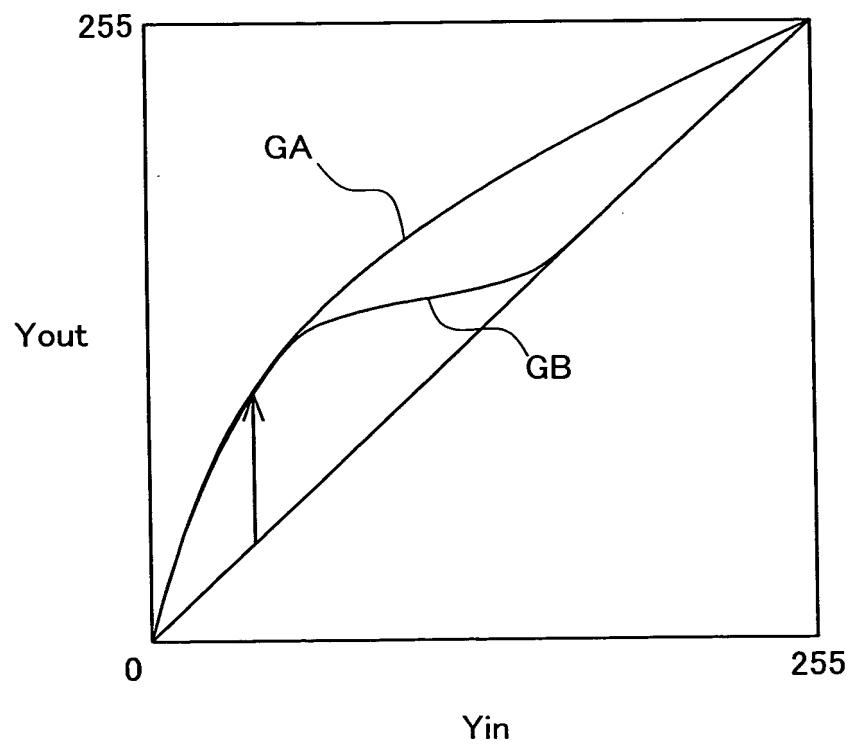


Fig.14(a)

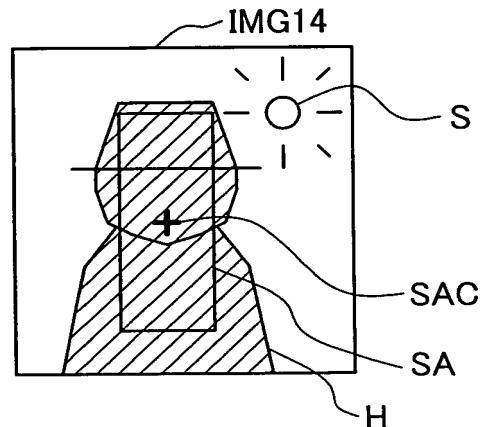


Fig.14(b)

BAave: average brightness value within subject area

Bave: average brightness value of entire image

k: predetermined constant

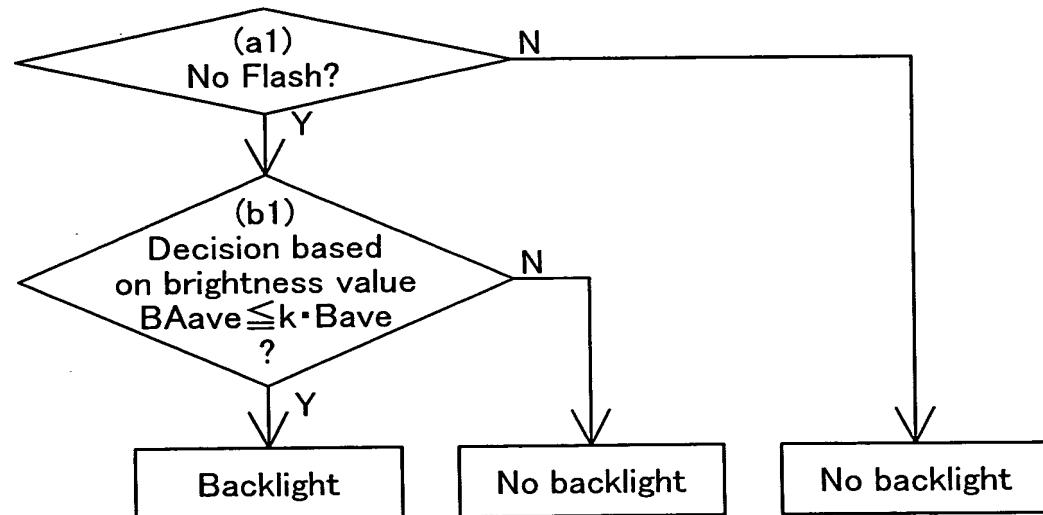


Fig.15(a)

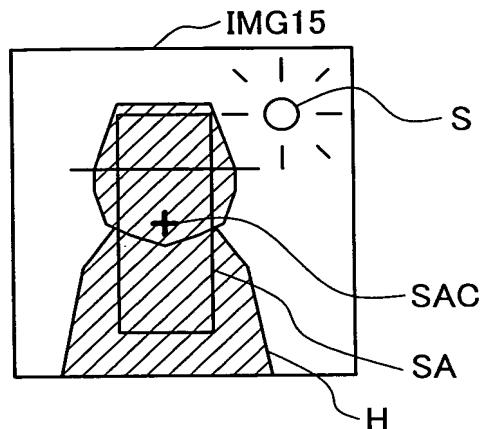


Fig.15(b)

BAave: average brightness value within subject area

Bave: average brightness value of entire image

k: predetermined constant

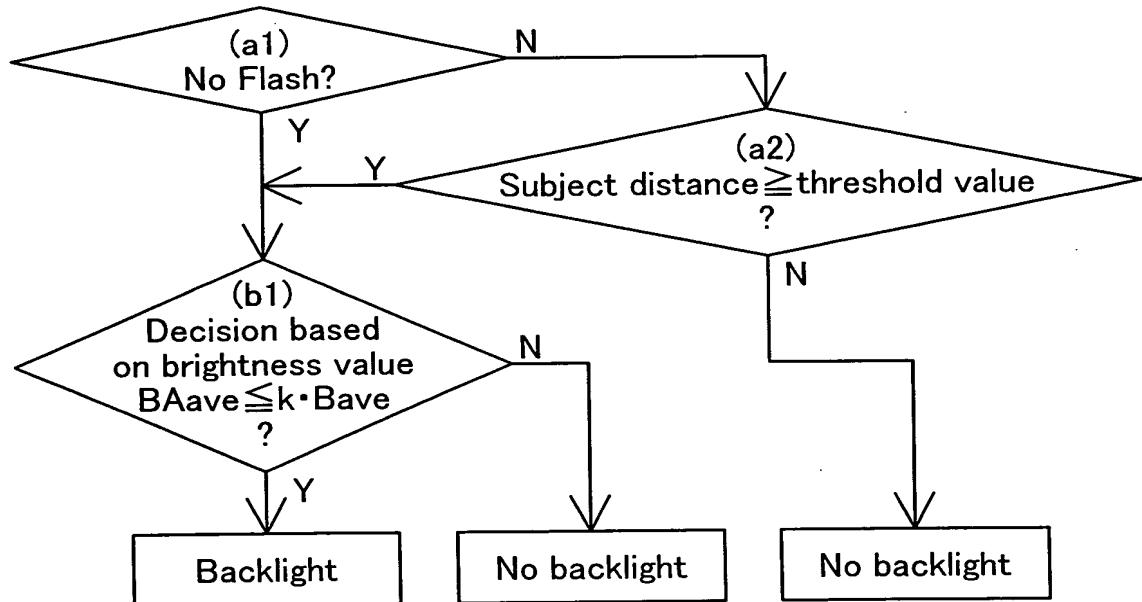


Fig.16(a)

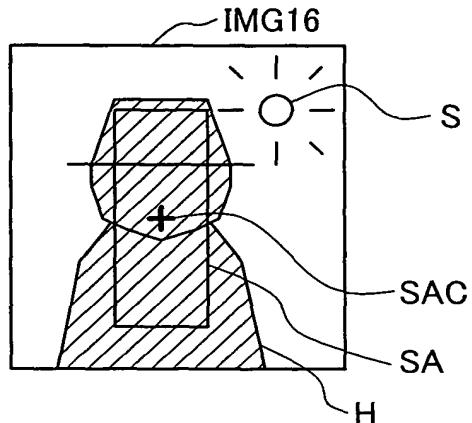


Fig.16(b)

BAave: average brightness value within subject area  
 Bave: average brightness value of entire image  
 k: predetermined constant

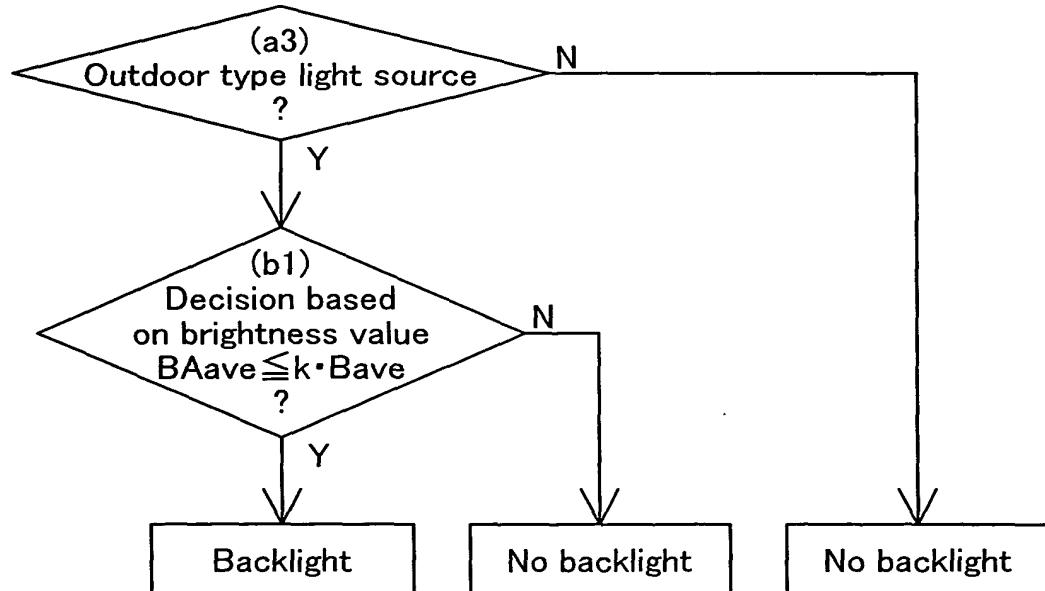


Fig.17(a)

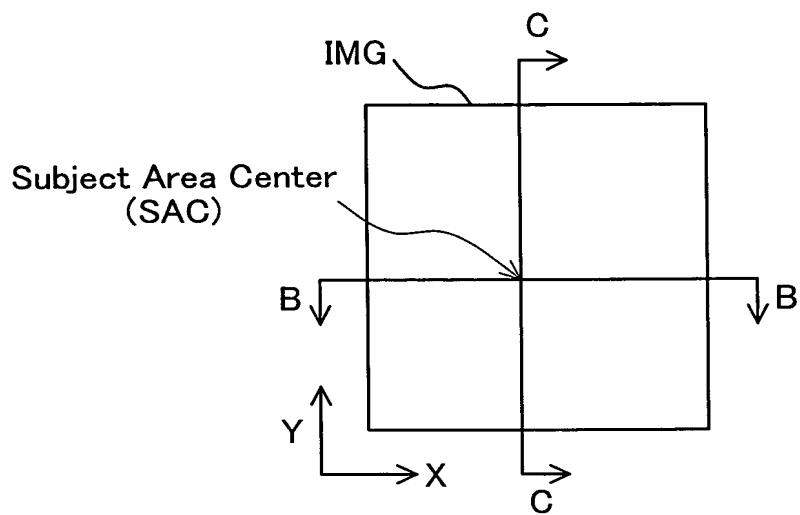


Fig.17(c)



Fig.17(b)



Fig.18(a)

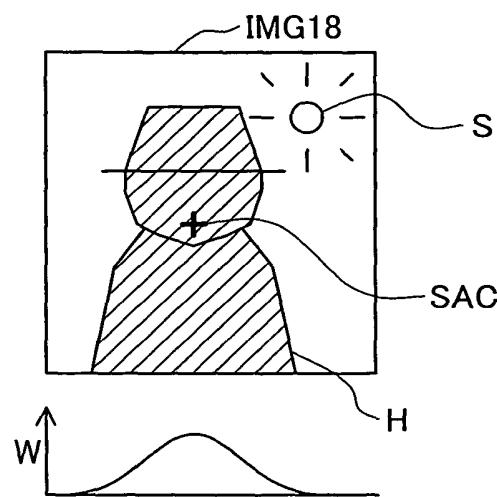


Fig.18(b)

BAWave: weighted average brightness value within subject area  
 Bave: average brightness value of entire image  
 k: predetermined constant

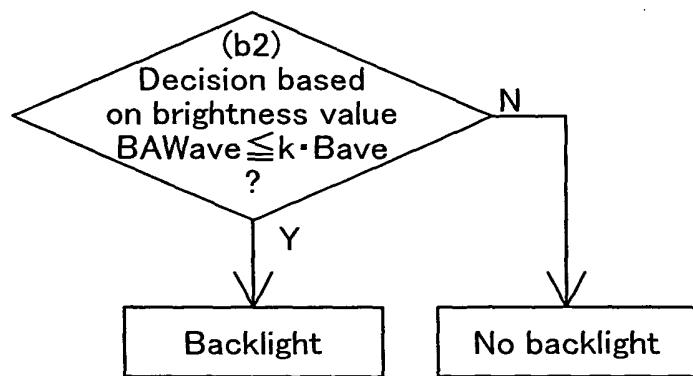


Fig.19(a)

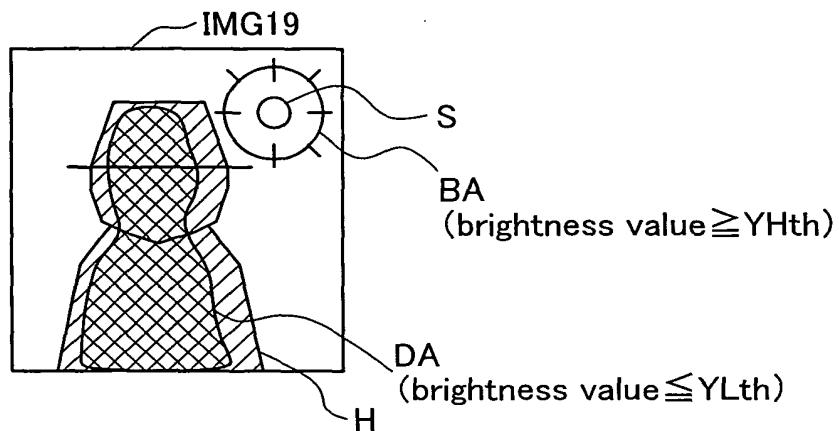


Fig.19(b)

Bratio: proportion of bright pixels (brightness value  $\geq Y_{Hth}$ )  
 Bth: bright pixel proportion threshold value  
 Dratio: proportion of dark pixels (brightness value  $\leq Y_{Lth}$ )  
 Dth: dark pixel proportion threshold value

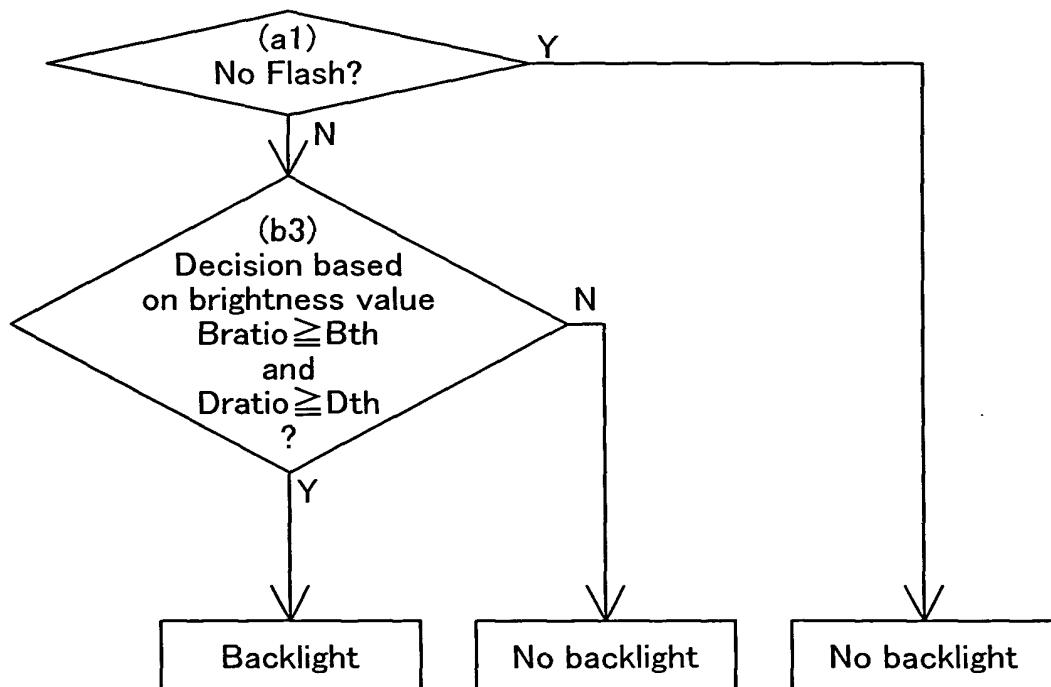


Fig.20(a)

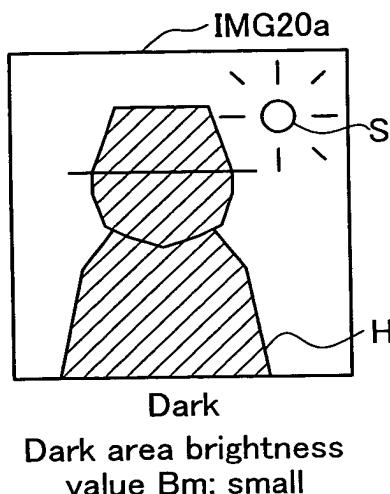


Fig.20(b)

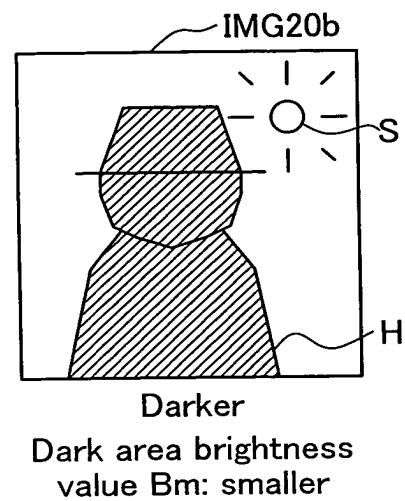


Fig.20(c)

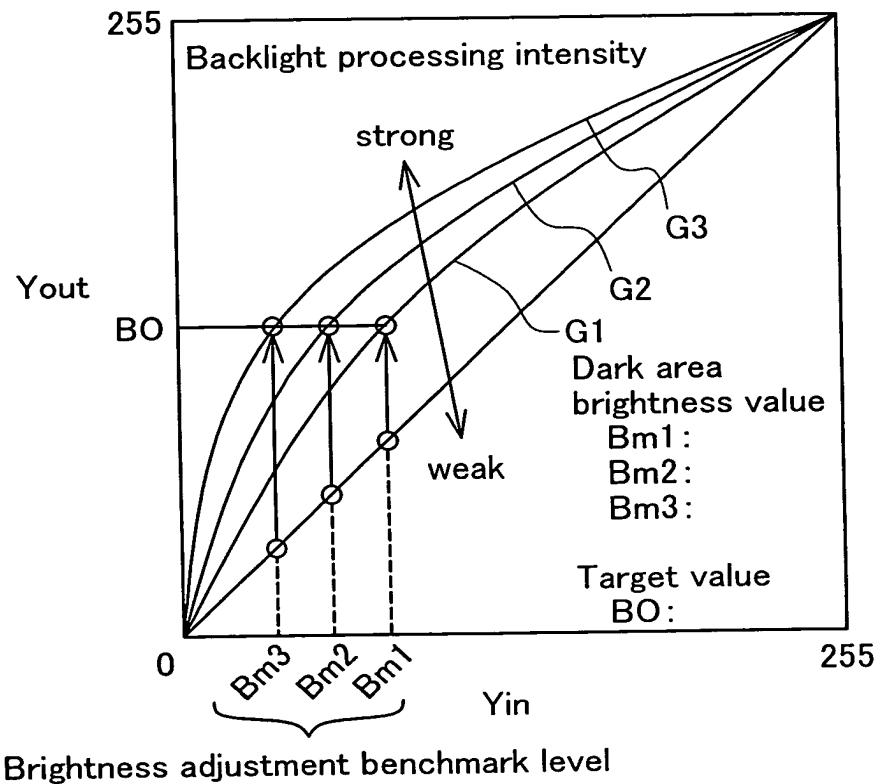
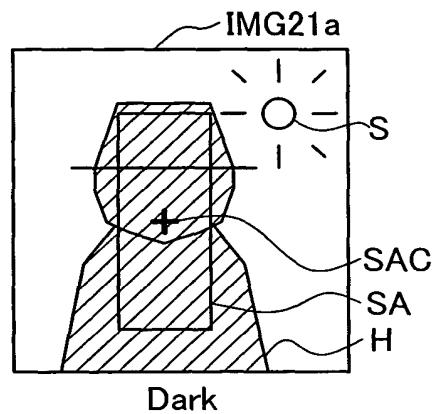
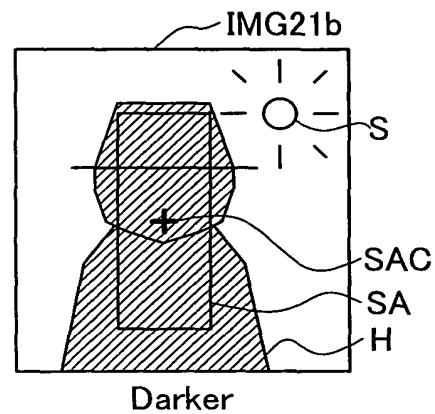


Fig.21(a)



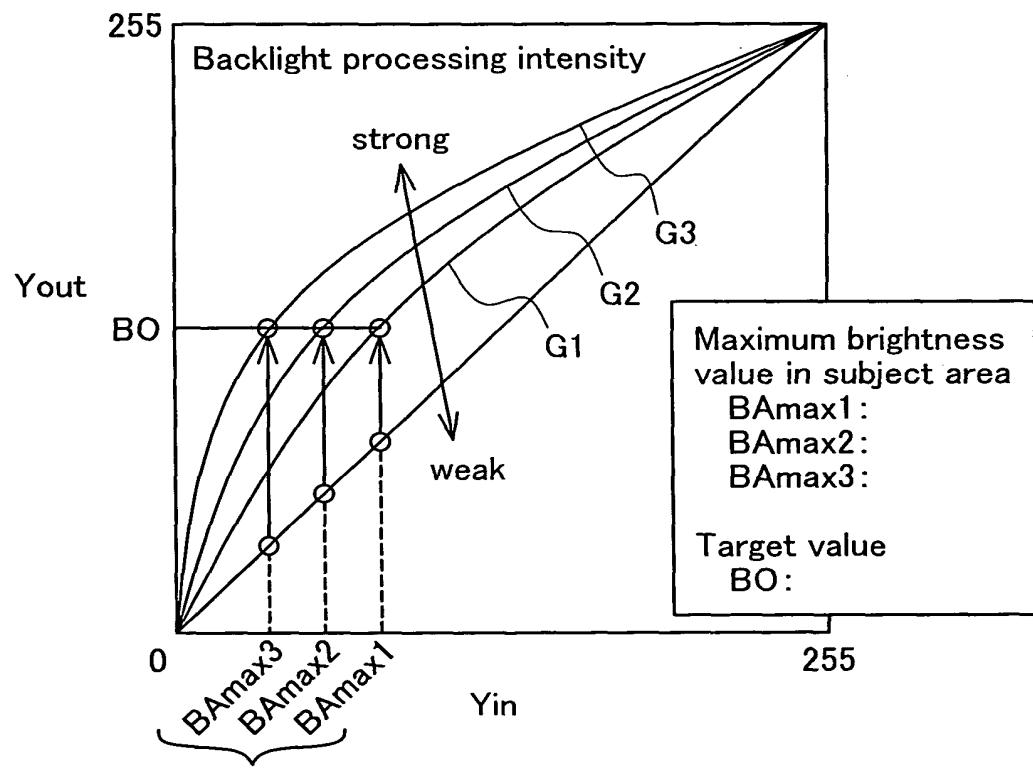
Maximum brightness value  
in subject area  $BA_{max}$ : small

Fig.21(b)



Maximum brightness value  
in subject area  $BA_{max}$ : smaller

Fig.21(c)



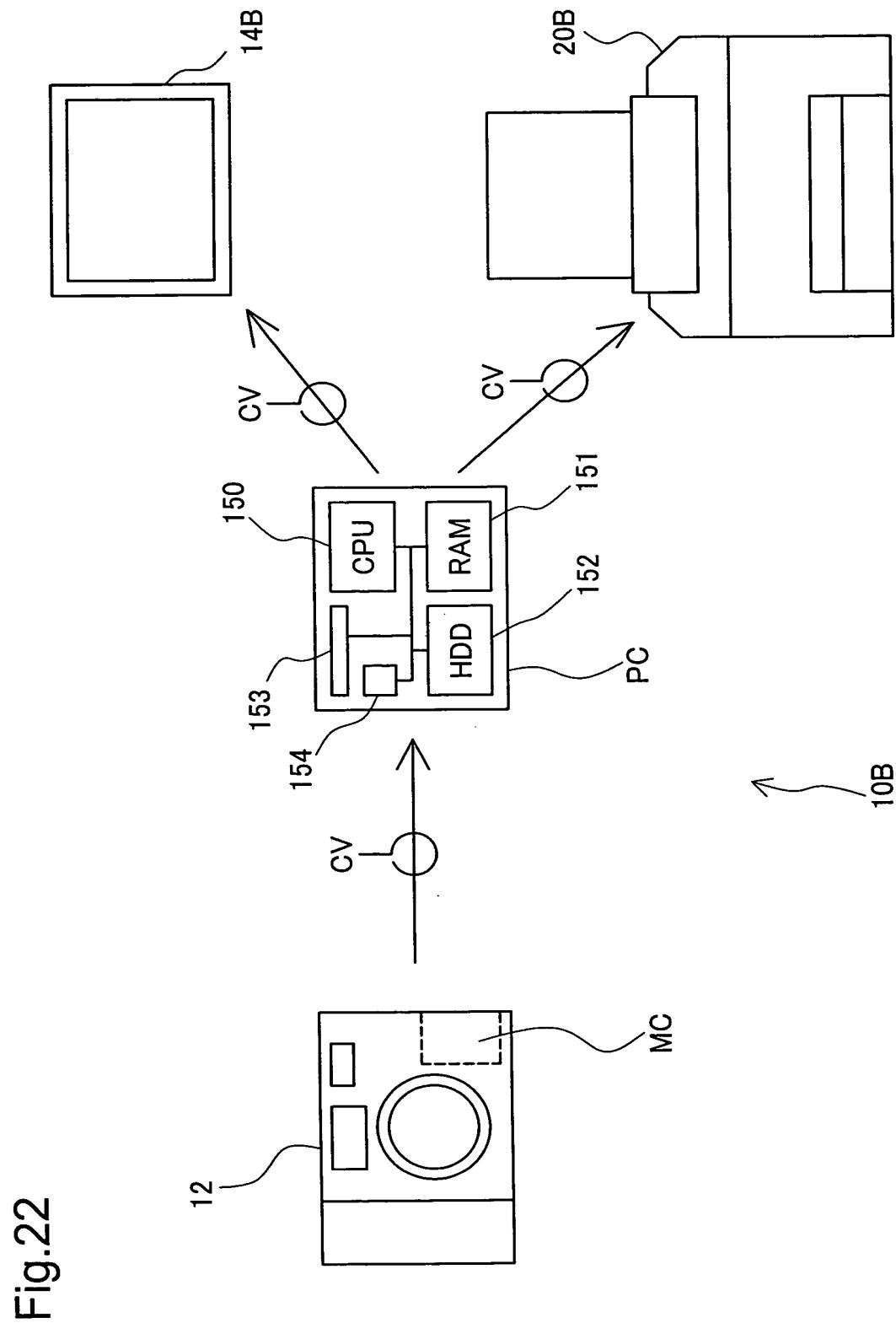


Fig.23

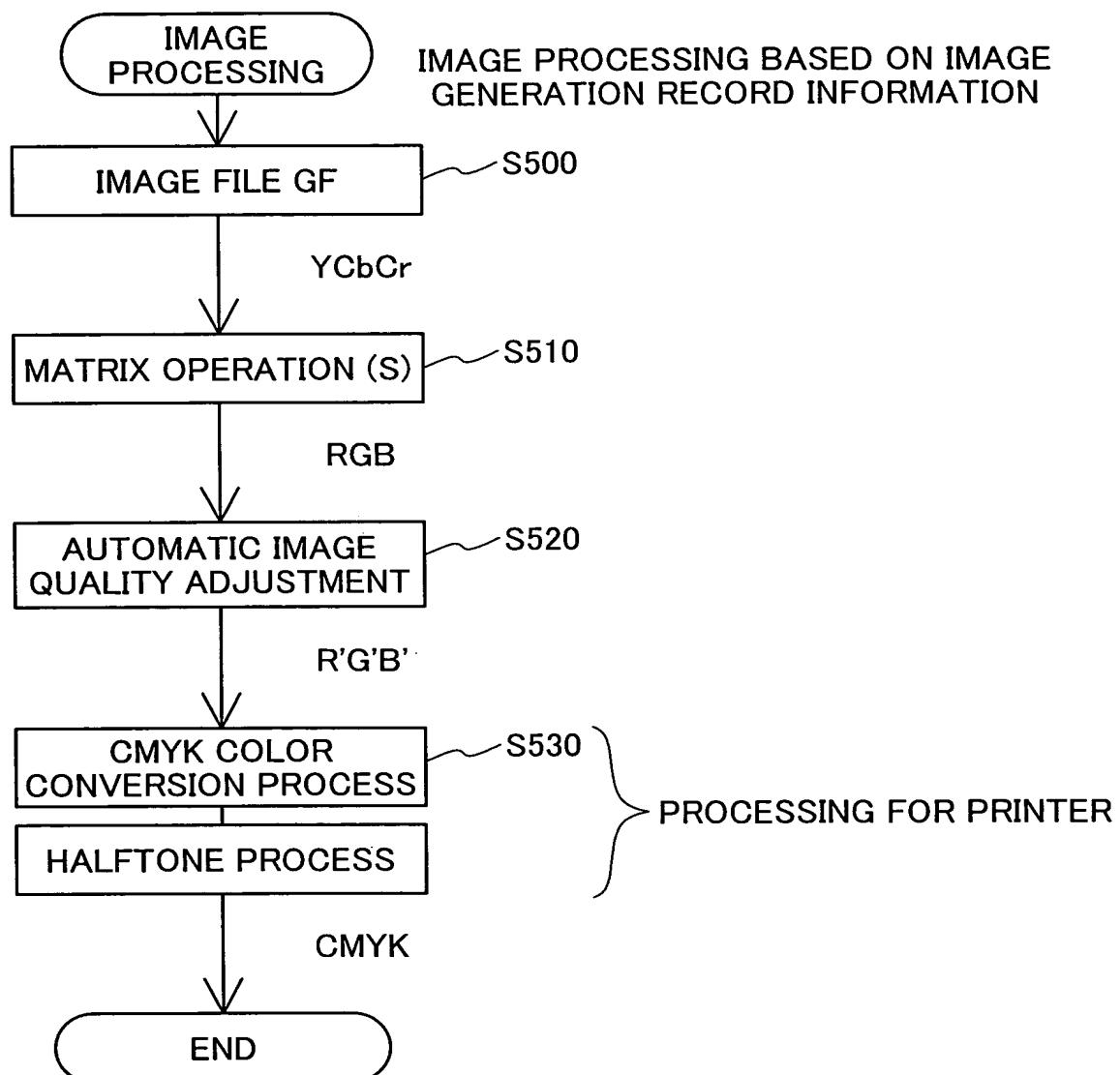


Fig.24

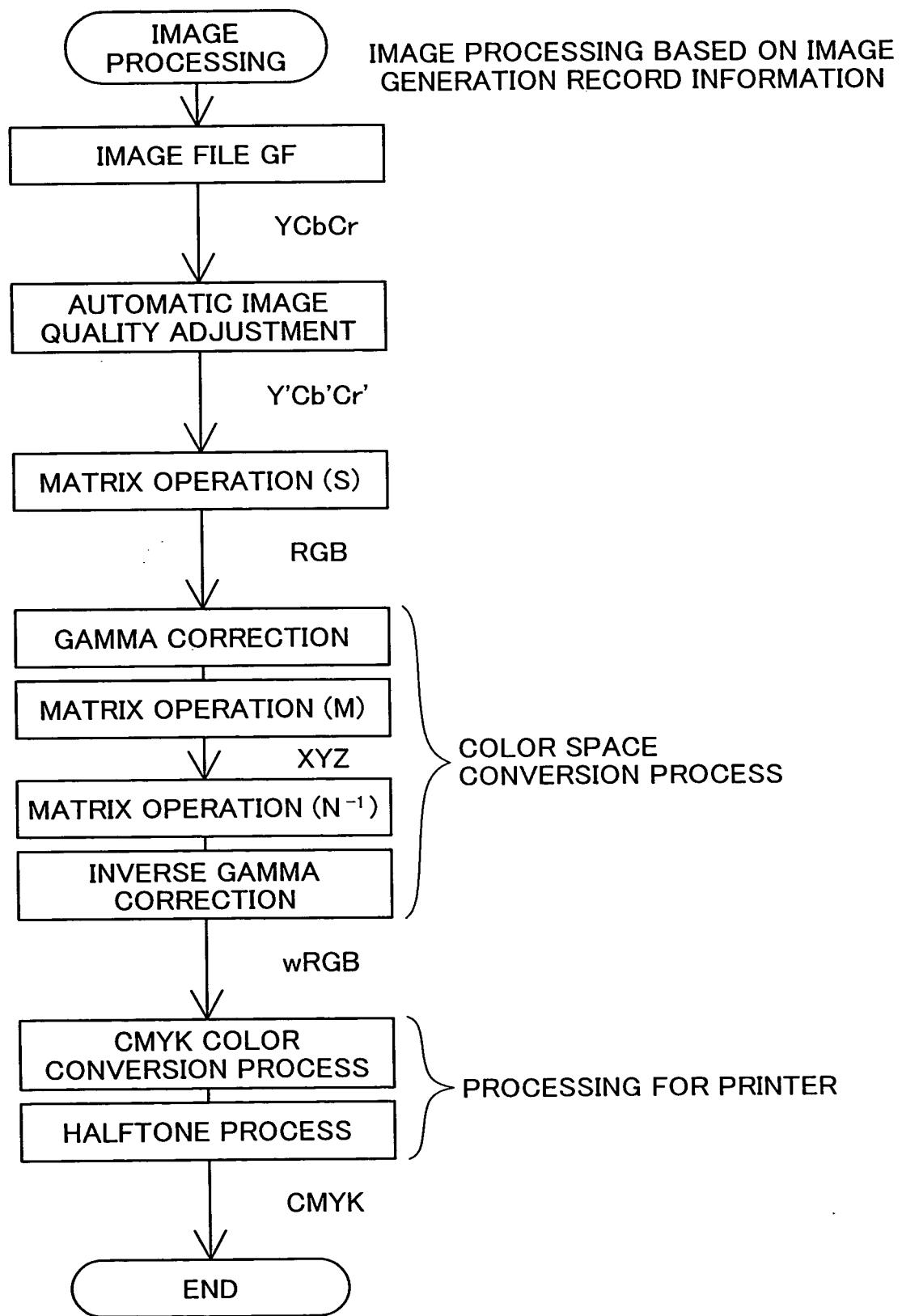


Fig.25

**IMAGE PROCESSING BASED ON IMAGE GENERATION RECORD INFORMATION**